

work contributes additional evidence showing that the line between autotrophic and heterotrophic nutrition is not so sharply drawn as is generally supposed. The power of the lower algae to use carbon compounds and especially the lower acids explains the abundant growth of those forms where decaying organic matter is present, as in contaminated waters.—H. HASSELBRING.

Rhizomorphic root-rot of vine.—MAGNUS²⁵ describes a rhizomorphic root-rot of the vine which causes the death of numerous plants in the vineyards of certain regions of Europe. The rhizomorphs are white strands which may attain a diameter of 2^{mm}. The strands lack a well-developed cortex, thereby differing from the characteristic strands of *Armillaria mellea*. The fungus is found to be abundant on the posts used as supports for the vines. From the posts the strands spread to the young roots of the vine, entwining and killing them. Although this disease with the accompanying rhizomorphs had been known for several years, it was not until the present year that the connection of the rhizomorphs with one of the Hymenomycetes was established by finding numerous sporophores of *Collybia platyphylla* growing from the strands. As this fungus is very common in America, it is not unlikely that it may be connected with one of the numerous rhizomorphic root-rot diseases infecting our fruit trees.—H. HASSELBRING.

Segregates of *Rhus glabra*.—GREENE²⁶ has studied the forms referred to *Rhus glabra* throughout its reputed range. He remarks that "there is no one species of tree or shrub of any continent that really holds the geographic range which the books and lists ascribe to *Rhus glabra*;" and points out the exceedingly diverse areas it is said to occupy in its continental distribution. Accordingly he has begun its segregation on the basis of such herbarium material as is available, recognizing the fact that this is probably a very scanty showing of the real situation, for "no special call has been made for collecting these shrubs from different regions." The form chosen to stand for the original *R. glabra* L. is one ranging from eastern Virginia and southern Maryland through southern Pennsylvania to Connecticut. Outside of that region botanists will have to refer their reputed forms of *R. glabra* to other species. This initial work of segregation has resulted in 29 species, 24 of which are new.—J. M. C.

Transpiration.—ARESCHOUG maintains the correctness of his view that the palisade tissue, when well developed and compact, reduces transpiration,²⁷ explaining away certain apparently contradictory experiments of HESSELMAN and others.

It seems to be about time to dismiss the idea of transpiration as a function,

²⁵ MAGNUS, P., Ueber eine Erkrankung des Weinstockes. Ber. Deutsch. Bot. Gesells. 24:402-406. 1906.

²⁶ GREENE, EDWARD L., A study of *Rhus glabra*. Proc. Wash. Acad. Sci. 8: 167-196. 1906.

²⁷ ARESCHOUG, F. W. C., Ueber die Bedeutung des Palisadenparenchyms für die Transpiration der Blätter. Flora 96:329-336. 1906.